IN THE CLAIMS

Please amend claims 1-3 as follows.

1. (Amended) A gamma correction method comprising:

a first conversion step of converting image data using a first table storing conversion values in addresses corresponding to at least input values[[:]] u(k) represented by u(k) = a b^{-k} [[(where a and b are constants and k is 0, 1, 2, ...m)]] of all input values and linear interpolation, where a and b are constants and k is 0, 1, 2, ...m;

a second table storing step of storing in memory a second table storing conversion values set in response to the image data provided at [[said]] the first conversion step in addresses corresponding to at least input values[[:]] v(k) represented by v(k) = ck+d [[(where c and d constants and k is 0, 1, 2, ...n)]] of all input values, where c and d constants and k is 0, 1, 2, ...n; and

a second conversion step of converting the image data provided at said first conversion step using the second table and linear interpolation.

2. (Amended) A gamma correction unit comprising:

a memory [[storing]] that stores a first table storing conversion values in addresses corresponding to at least input values[[:]] u(k) represented by u(k) = a b^{-k} [[(where a and b are constants and k is 0, 1, 2, ...m)]] of all input values and linear interpolation, where a and b are constants and k is 0, 1, 2, ...m;

first conversion [[means for converting]] unit that converts image data using the first table and linear interpolation;

second table storing [[means for storing]] unit that stores in the memory a second table storing conversion values set in response to the image data provided by said first conversion [[means]] unit for at least input values[[:]] v(k) represented by v(k) = ck+d [[(where c and d are constants and k is 0, 1, 2, ...q)]] of all input values, where c and d are constants and k is 0, 1, 2, ...q; and

second conversion [[means for converting]] unit that converts the image data provided by said first conversion [[means]] unit using the second table and linear interpolation.

3. (Amended) An image read system comprising:

a scanning section [[for scanning]] that scans an optical image and [[outputting]] outputs image data representing the optical image[[,]];

an optical system [[for inputting]] that inputs an optical image of an original to the scanning section[[, and]];

a gamma correction unit including, [[as claimed in claim 2, characterized by:]]

a memory that stores a first table storing conversion values in addresses corresponding to at least input values u(k) represented by $u(k) = a\,b^{-k}$ of all input values and linear interpolation, where a and b are constants and k is 0, 1, 2, ...m,

a first conversion unit that converts image data using the first table and linear interpolation,

a second table storing unit that stores in the memory a second table storing conversion values set in response to the image data provided by the first conversion unit for at least input values v(k) represented by v(k) = ck+d of all input values, where c and d are constants and k is 0, 1, 2, ...q, and

a second conversion unit that converts the image data provided by the first conversion unit using the second table and linear interpolation;

a setting [[means for causing]] unit that causes the scanning section to output low-resolution image data, causing the first conversion [[means]] unit to convert the low-resolution image data output by the scanning section, and setting a conversion value in the second table in response to the low-resolution image data provided by the first conversion [[means]] unit; and

a conversion [[means for causing]] unit that causes the scanning section to output high-resolution image data and [[causing]] causes the first conversion [[means]] unit and the second conversion [[means]] unit to convert the high-resolution image data output by the scanning section.